

Household Water Treatment and Safe Storage Fact Sheet: PUR

The Treatment Process



Effectiveness

Very Effective For:	Somewhat Effective For:	Not Effective For:
<ul style="list-style-type: none"> • Bacteria • Viruses • Some protozoa • Helminths • Turbidity 	<ul style="list-style-type: none"> • Some heavy metals (e.g. arsenic, chromium, lead) • Taste, smell, colour 	<ul style="list-style-type: none"> • <i>Cryptosporidium parvum</i> • Toxoplasma oocysts • Dissolved chemicals

How Does it Work?

PUR is a powder which contains both coagulants and a timed release form of chlorine. It is sold in single packets designed to treat 10 L of water. The product uses coagulation and disinfection to remove turbidity and pathogens from water at the same time. When added to water, the coagulant first helps the suspended particles join together and form larger clumps, making it easier for them to settle to the bottom of the container. Then chlorine is released over time to kill the remaining pathogens. The treated water contains residual free chlorine to protect against recontamination.

Effectiveness

- Quality: Very effective in removing almost all pathogens, some heavy metals and organic chemicals; not effective for *cryptosporidium* and *toxoplasma*. Protects water against recontamination.
- Quantity: 1 packet for 10 L of water
- Local water: Can be used with turbid to clear water

Appropriateness

- Local availability: Cannot be made locally. Must be shipped, distributed and sold locally
- Time: At least 30 minutes for coagulation and disinfection
- Operation and maintenance: Follow manufacturers instructions for use; Packets should be protected from extremes of temperature and humidity
- Lifespan: 3 years from manufactured date



Acceptability

- Taste, smell, colour: Some people do not like the taste or smell of chlorinated water
- Ease of use: Follow manufacturer's instructions

Cost

- Initial purchase cost: None
- Operating cost: At 20 litres/household/day totals US\$73/year